

CLAIMS

1. A solid electrolyte type fuel cell comprising a heat recovery path (11) that recovers heat loss from a cell module around said cell module including a cell stack (1) that generates electricity from a fuel gas and an oxygen-containing gas, and a burning section that contacts and burns remaining fuel gas and oxygen-containing gas from said cell stack (1), said solid electrolyte type fuel cell comprising:

branch flow rate regulating means (12) that branches supplied fluid to said cell stack (1), said supplied fluid being one of a fuel gas and an oxygen-containing gas, and regulates a flow rate of said supplied fluid to be branched; and

a branch flow path that supplies said supplied fluid having been branched and whose flow rate has been regulated to said heat recovery path (11).

2. The solid electrolyte type fuel cell according to claim 1, wherein said branch flow rate regulating means (12) increases a ratio of said flow rate of said supplied fluid to be branched to the overall flow rate, in response to partial-load operation or standby operation being conducted by said solid electrolyte type fuel cell.

3. The solid electrolyte type fuel cell according to claim 1 or 2, wherein said heat recovery path (11) is formed across a plurality of layers with reference to said cell module (1).

4. The solid electrolyte type fuel cell according to any one of claims 1 to 3, wherein said heat recovery path (11) further surrounds a heat exchanger (10) that exchanges heat with burned waste gas.

5. The solid electrolyte type fuel cell according to any one of claims 1 to 3, wherein said cell module further houses a heat exchanger (10) that exchanges heat with burned waste gas.

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6. The solid electrolyte type fuel cell according to any one of claims 1 to 5, wherein said heat recovery path (11) further surrounds a vaporizer (7) that vaporizes said fuel gas added with water.

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7. The solid electrolyte type fuel cell according to any one of claims 1 to 5, wherein said cell module further houses a vaporizer (7) that vaporizes said fuel gas added with water.

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8. A solid electrolyte type fuel cell comprising a heat recovery path (11) that recovers heat loss from a cell module around said cell module including a cell stack (1) that generates electricity from a fuel gas and an oxygen-containing gas, and a burning section that contacts and burns remaining fuel gas and oxygen-containing gas from said cell stack (1), said solid electrolyte type fuel cell comprising:

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a first flow path that leads the oxygen-containing gas to said cell stack (1); and
a second flow path that leads the oxygen-containing gas to said heat recovery path (11).